

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
14 April 2005 (14.04.2005)

PCT

(10) International Publication Number  
**WO 2005/032955 A2**

(51) International Patent Classification<sup>7</sup>: **B65D**  
(21) International Application Number:  
PCT/US2004/032565

(22) International Filing Date:  
30 September 2004 (30.09.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/507,739 1 October 2003 (01.10.2003) US

(71) Applicant (for all designated States except US): **HOLLAND L.P.** [US/US]; 1000 Holland Drive, Crete, IL 60417-2120 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **THOMSON, Stuart, H.** [US/US]; 4063 Cunmor Road, Downers Grove, IL 60515 (US). **O'NEILL, Brian, E.** [—/US]; 19 Carlisle St., #3, Hanover, PA 17331 (US).

(74) Agent: **BREZINA, David, C.**; Barnes & Thornburg LLP, P.O. Box 2786, Chicago, IL 60690 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Declaration under Rule 4.17:**

— of inventorship (Rule 4.17(iv)) for US only

**Published:**

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: CORNER AND BULKHEAD PROTECTOR

(57) Abstract: A corner protector and bulkhead protector for a cargo carrying vehicle such as a rail car are formed to have deep channels or corrugations that provide for both. increased strength and rigidity while also providing support for load restraining web straps.



**WO 2005/032955 A2**